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## **Creativity Education in Japan: Some Insights for Educators**

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### **Introduction**

*Sozosei kyoiku* or creativity education refers to efforts made by schools and industries to cultivate creativity. Moving beyond the conventional educational objectives that end at acquiring knowledge and skills (Takahashi, 1993, p.192), creativity education acknowledges new combinations and interrelations and provides conditions that help develop them (see Wollschlaeger, 1972). Individuals acquire knowledge and skills by undertaking formal and informal education. Referring to the knowledge and skills that they acquired as foundations, creative individuals refine and propose new knowledge and skills that are rich in innovative and creative ideas. In addition to fundamental and creative skills, creative individuals possess psychological dispositions that motivate them to continuously search for new solutions, combinations of ideas and discoveries. Examples of these dispositions are curiosity, risk taking, independent decision making, flexible thinking and learning styles.

The ultimate aims of creativity education are to uncover individuals' potential abilities and to manage them effectively. Creative performances of an individual do not happen in a vacuum. They are products of the individual's efforts, commitments and talents in his (her) area of specialisation supported by resources and people around him (her). Creativity education takes its shape within social, cultural, economic and political contexts. It is in line with contemporary socio-economic and educational aspirations. The cultivation of human potentials is a long-term process. It begins at home and continues throughout school, industries or at work. Innovative and creative ideas are likely to flourish if they receive social support and recognition. Hence, it is indispensable for social institutions (e.g., family, schools, universities, industries) to prepare environments (e.g., psychological, socio-cultural, economic) that can stimulate the spark of original, new, productive and useful ideas.

Creativity education is an important component of total education. Cultivating creativity goes beyond structural changes in the curriculum, assessment and pedagogical infrastructures. It involves a series of cultural and psychological transformations in conceptualisation and in practical implementations of theories and techniques of creativity. The transformations challenge a fundamental issue, that is, on how creativity education can assimilate strengths and merits of the contemporary socio-cultural, economic and educational system. In addition to generating ways and conditions that can uncover creative potentials and foster creative performances, creativity education also challenges the intelligence of researchers and educators to propose indigenous frameworks that can optimise the process of cultivating creativity.

Given the fact that most theories, models and instruments in the area of creativity are products of the West, we propose the indigenous approach to creativity education as but one of many approaches. The first concern of the indigenous approach to creativity education is related to cross-cultural validity and reliability when knowledge and expertise of creativity is adopted. It is believed that cultures are

sources of knowledge. Every civilisation possesses innovative and creative elements. Indigenous researchers conduct the study of human behaviour and mind that is native, that is not transplanted from other regions, and that is designed for its people (Kim & Berry, 1993). The indigenous understanding of creativity education highlights the study of creativity from the native perspective and for the native target group. The study of creativity education will be incomplete if we neglect socio-cultural influences on creativity education. The second issue addresses ways to extract and to pass on creative and innovative elements. The indigenous approach to creativity education emphasises the cross-generational effects on creative performances. Creative performances do not happen overnight. They are products of accumulative efforts of ingenious people. Creative products are results of a continual active systemic and self (or individual) generation of creative and innovative ideas drawing upon past experiences, reflecting on contemporary needs, and being in line with the vision of future development (see Simonton, 1988). Accordingly, creativity education is a method of evolving existing cultural variations, and creating new ones that have adaptive values for future socio-cultural evolution.

### **Creativity in Japan's Educational System**

Despite its high rate of literacy and academic achievement, Japanese education is characterised by intensive competitiveness (Hawkins & Tanaka, 1992) focusing on university entrance examinations (Yamada, 1991). Education is perceived as one of the most important avenues to a good life and a prestigious social status. Besides formal learning in schools, most Japanese children attend tuition classes. The belief in and the optimistic hope for education as a means to a successful life are embedded in the Japanese value systems. Though the streaming exercise does not exist in the Japanese educational system, it is competitive to join renowned high schools (age 15-17 years) and universities (age 18 years and above). In some cases, the university from which a person graduates determines his (her) possible career development due to the close link between seniors and juniors. The Japanese educational system is "inflexible" due to the fact that students who drop out from the Japanese system encounter much difficulty to return to mainstream education. There is hardly enrolment for adult students at any period of entry within the system.

Modern Japan started its commitment in creativity education since the Meiji era. Many Japanese scholars were sent to acquire knowledge and skills from prominent universities and research institutions around the world. At the same time distinguished scholars from various countries were invited to help establish universities and research institutes in Japan. To modernise the economy, Japanese leaders set a high priority for creativity in the areas of technology and science. It was believed that technology from the West was essential for practicality, whilst Japanese values and customs were fundamental for cultural transmission. In its early development (1900-1960), techniques and models from the West were adopted. Two decades later (in the late seventies and eighties), indigenous brain-writing techniques were invented and have since been widely employed in the enterprises (Takahashi, 1993). The KJ-Method (Kawakita, 1983), for instance, allows individuals to express their ideas freely on cards, and restores equality by accepting all ideas without discrimination. For a detailed account on the development of creativity research in Japan, please refer to Onda (1986), Akiyama (1983) and Tan (1997).

The reform in education (in the eighties) led by Prime Minister Nakasone urged to investigate structural rigidity caused by writing and calculating, the permanent employment of teachers and examination drive (Kato, 1996). There were

also extensive discussions on the reduction of school days from six to five. Objectives of contemporary Japanese education (Monbusho, 1996) reflect the wish of cultivating creativity through enhancing individuality: “ ... to enhance educational programs that will enable each child to give full play to his or her individuality. ... To attach more importance to the nurturing of children’s capacity ... to the provision of a sound base for fostering children’s creativity. ...” (p.23). The over-emphasis on egalitarianism could have neglected individual needs and the cultivation of creativity (Schoppa, 1991). It could also induce conformist and uniform behaviours, possible adverse factors of creativity. Consequently, in the early conceptualisation of cultivating creativity in education the concept of liberalisation (*jiyuka*) (1983) was introduced. However, the concept of liberalisation was criticised and was later replaced by the concept of individuality (*kosei shugi*) (1985). We will discuss individuality more extensively in the next chapter.

An analysis of the contents of the revised courses of study for elementary and secondary schools (Monbusho, 1991 a, b, c) showed that the terms thinking (*shiko*) and thinking ability (*shiko ryoku*) are elicited explicitly across disciplines. Within a level, the term creativity (*sozo*) is frequently associated with arts, music and special social activities (*tokubetsu katsudo*). For academic subjects such as science, mathematics, geography and history, the term thinking ability (*shiko ryoku*) is employed (e.g., mathematical thinking). Table 1 displays curricular time and educational objectives of subjects taught in the primary school level.

### Individuality

Individuality or *kosei shugi* is different from individualism in the West that characterises a commitment to personal goals. The acknowledgement of individuality comes with a commitment that is tied to the recognition of a person as a social being or an entity that is meaningful within a larger social context (Markus & Kitayama, 1998). Establishing good interpersonal relationships is one of the most crucial responsibilities of every individual. The Japanese self is defined as a relational entity that is made meaningful with reference to pertinent social relationships to which the self is a part (Markus & Kitayama, 1991). The primary task of a self involves fitting into and adjusting to social relationships (Kitayama et. al., 1997).

Individuality incorporates the interdependent and relational self-concept. It considers an individual’s unique needs and potentials in relation to his(her) social responsibilities in an interdependent society, in contrast to equality without recognising uniqueness of individuals. The development of individual personality is stressed (Nohara, 1993) from the given social roles. The concept of *ikiru chikara* (ability to live on and to be active) introduced in Japanese education, for instance, encompasses independent learning, thinking and evaluation, self-discipline, co-operation, consideration of other people’s positions (*omouyari*) and a personality cultivation (Takashina, 1997). Indigenisation in Japanese creativity education has undergone continuous refinements on the concept of individuality in light of social behaviours. We highlight this argument from the information gathered by the first author of this paper from her visits to three schools (March 1997). Shinagawa Kuritsu Hino Daisan Primary School emphasised teachers’ co-operation and creative wills in ensuring high quality education, as well as in cultivating children’s independent learning habits, creative competence and ability to face social changes. In teaching every subject, the teacher should attend to the development of individual personality and competence, flexibility in thinking, creative ability and self-expression. Shinagawa Kuritsu Togoshidai Junior High School focused on pedagogical activities

that cultivate qualities such as independence, creativity and being considerate. Toritsu Hakuo High School set a high priority on cultivating creative leadership. Principals and teachers of these schools acknowledged the importance of cultivating team spirit and nurturing individual independent competency. Analysing the information gathered from the three visits, we may infer that individual creativity is assumed to be developed through group co-operation (Onda, 1993).

Table 1: Curricular Time and Educational Objectives of Subjects for Primary Pupils

Subject	Percentage of curricular time	Educational objectives
Japanese	36% (P1), 35%(P2), 29%(P3), 28%(P4), 21% (P5, P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Japanese.</li> <li>Ability to express and understand.</li> </ul>
Society	11%(P3), 10% (P4-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Society.</li> <li>Social thinking <i>shiko</i> and evaluation <i>handan</i>.</li> <li>Observation, skills to use and perform resources flexibly.</li> <li>Knowledge and comprehension of social phenomena.</li> </ul>
Mathematics	16%(P1), 19%(P2), 18%(P3), 17% (P4-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Mathematics.</li> <li>Mathematical thinking <i>sugaku deki na kangae kata</i>.</li> <li>Knowledge and comprehension of quantities and shapes.</li> </ul>
Science	11%(P3), 10% (P4-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Science.</li> <li>Scientific thinking <i>kagaku deki na kangae kata</i>.</li> <li>Observation, experimental skills, expression.</li> <li>Knowledge and comprehension of nature and natural phenomena.</li> </ul>
Life	12%(P1-P2), 7%(P3)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Life.</li> <li>Thinking <i>shiko</i> of and performing activity and experience.</li> <li>Awareness of the environment and self.</li> </ul>
Music	5%(P1-P2), 7%(P3-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Music.</li> <li>Ability to feel and perform music (creatively).</li> <li>Skills to perform.</li> <li>Ability to appreciate.</li> </ul>
Arts	8%(P1-P2), 11%(P3), 7%(P4-P6)	<ul style="list-style-type: none"> <li>Concern for and desire for making shapes.</li> <li>Ability to discover <i>hasso</i> and imagine.</li> <li>Creative <i>sozo deki na</i> skills.</li> <li>Ability to appreciate.</li> </ul>
Family	7%(P5-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards family life.</li> <li>Ability to have creativity <i>sozo</i> in life.</li> <li>Knowledge and comprehension of family life.</li> </ul>
Physical education	12%(P1-P2), 11%(P3), 10%(P4-P6)	<ul style="list-style-type: none"> <li>Concern for, desire for and attitude towards Physical Education.</li> <li>Thinking of <i>shiko</i> and evaluation <i>handan</i> of sport, health and safety.</li> <li>Skills for sport.</li> <li>Knowledge and comprehension of health and safety.</li> </ul>

Note: The number of learning hours for primary 1 (P1) is 850, P2 910, P3 980, and P4-P6 1015. Moral education and special activities comprise four percent of the curricular time (P1-P6), respectively. Source: Monbusho, 1991a, Monbusho 1993.

### The Indigenous Approach to Creativity Education

While we analyse creativity education in Japan, we delineate three connotations of indigenisation for creativity education. First, individuals enter a socio-cultural system

at a particular historical point prepared with a set of capacities for engaging in relevant social units (Kitayama et. al., 1997). Hence, indigenisation in creativity education sensitises human behaviours and thinking processes within a cultural context that relies on values, concepts, belief systems, methodologies, and other resources specific to the people of a society (see Ho, 1998). Creativity education is designed within the ecological, philosophical, cultural, political, and historical contexts. It acknowledges common sense or naïve conceptions of creativity held by ordinary people of a given culture (see Boski, 1993; Jodelet, 1993). Conceptions of creativity education can also be identified from people's understanding of specific behaviours within their daily lives (see Durojaiye, 1993).

The Japanese educational system is regarded as a system that over-emphasises uniformity and conformity which may stifle individual creativity. Uniformity in assessment may have neglected individual potentials and abilities. Analysing creativity education in Japan, we may realise that the concept of individuality was perceived as an indispensable factor for cultivating creativity. The phrases every child (*kodomo hitori-hitori*), own opinion (*jibun no omoi*), self experience (*jiko jitsugen*), and self-discovery (*naihatsu*) are examples of many expressions that describe the concept of individuality in creativity education (see Monbusho, 1993). The emphasis on individuality however has not neglected social harmony and group work. Children are educated to be socially aware of their environment and surroundings through subjects such as moral education, life, society, family and special social activities. It seems to us that Japanese educators intend to incorporate individual space into teamwork by repeatedly emphasising every individual's credit and effort within the socially oriented curricula.

It is evident that the term creativity (*sozo*) is sparingly used in subjects other than moral education, special social activities, arts and music. Though Japanese educators recognise the importance of emphasising various types of thinking in all disciplines (see Table 1), the concept of creativity (*sozo*) has not been broadened to subjects that are "academic" oriented. Japanese educators do not seem to relate creativity to "academic" performances in subjects such as science, mathematics and languages. It seems that there is a lack of commitment in introducing and infusing creative skills in these subjects. One may wonder whether Japanese educators perceive creativity as an asset of extra-curricular activities (e.g., special social activities, arts and music), or that living in a collectivist society, they tend to promote social and interpersonal creativity. Further research is required to clarify these doubts.

Second, indigenisation encourages active participation of researchers who are born and raised in a society, and of researchers who possess cultural expertise and language competence of that society. The indigenous approach to creativity education affirms the need of each culture (e.g., developed, developing, underdeveloped, or other) to develop its own indigenous understanding of creativity education. In the educational setting, educators and teacher educators are indigenous observers who take part in creativity research related to classroom and outdoor learning. Each system and society (or culture) is unique. It is indispensable to involve individuals of the target group in applied research. Indigenous research on creativity education will come about only from continuous scientific investigations, and reliable psychological explanations of creative behaviour and thinking that are found to be typical within the country.

Japanese creativity education has nearly a century's history, tracing back to the Meiji era when the scholars were sent out to learn scientific and technological skills and techniques. For the past few decades, creativity education has received

recognition in the industries. Incremental improvement or *kaizen* is one of the indispensable working phenomena in Japanese organisations. Despite the intensive commitment towards innovation and invention in the industry, Japanese schools are still in their infant stage of nurturing individual pupils' creativity. Educational research in creativity education is yet to receive attention from the educators and teachers. Curricular reform committees and teachers should co-operate and innovate resources and techniques that can uncover children's creative potentials. Appropriate frameworks should also be designed to guide teachers in preparing an effective and innovative learning environment.

Third, indigenisation is not a revivalism of traditional expertise, rejecting imported knowledge and expertise (Sinha, 1992). It does not create a distinct isolation from insights generated in other social and cultural settings (Sinha, 1989; Tan 1994). If a method or a framework operates effectively in one setting, indigenisation would mean transferring scientific and psychological knowledge in such a way that it takes on a character suited to the social-cultural milieu of the recipient country (Sinha, 1989, 1993). The use of multiple methods is encouraged to investigate multiple perspectives in a society (e.g., western, eastern) that are not shared by all groups. Regardless of his(her) origin (local or foreign), an indigenous researcher refers to a person who has tremendous dedication to and insights into universal and special behaviours and thinking of a target group. Insider's views and outsider's views should be compared in order to develop a comprehensive understanding of creativity education (see Ho, 1998). Indigenous methods and theories evolve during the process of exploring specific and common features among individuals within a setting (indigenous) and across settings (cross-indigenous).

Within the Japanese context, cross-indigenous studies on creativity education can mean the comparative study between creativity educational programs taking place in the industries and in schools. Successful programs and techniques used in the industries should be refined and modified before they are introduced to schools. Asian education of the twenty-first century recognizes the importance of cultivating creativity in schools. In 1996 Singapore launched its "thinking schools, learning nation" framework. At the same time Malaysian educators reiterated the importance of nurturing thinking. Across cultural settings Japanese educators can exchange ideas with their counterparts in Asia and in other continents. They can also share their difficulties and successes through study visits and international exhibitions.

### **Conclusion**

Japan is characterised by collectivism emphasising interdependence among individuals. Members of collectivist societies focus on common elements, interpersonal harmony and social support (Kagitcibasi, 1997). People living in collectivist societies are likely to place a great emphasis on intelligence and creativity in the interpersonal and social domain. The indigenous approach to creativity education in Japan can enlarge our scope of understanding the concept of creativity that includes incremental improvement and group efforts. The same approach can also help identify creative mechanisms that are involved in the process of establishing social harmony. In adjusting to social relationships, the Japanese are sensitive to self-criticism, extracting negative self-relevant information for the process of relational self-improvement (Kitayama et.al., 1997). The Japanese's low perception of their own creativity (Duke, 1991) does not imply that they are less confident than their counterparts in inventiveness and innovativeness. Criteria for evaluating the perception of Japanese creativity should cater to the effect of interdependent and

relational self-concept. Indigenous methods for measuring interpersonal and social creativity should be developed (see Lewis, 1992).

The success in the Japanese industry and business is an evidence of Japanese creativity education that stretches beyond the formal system. Adopting the life-long educational concept, education continues in the enterprises. Fresh graduates receive a comprehensive on-the-job-training program that enables them to be expert in job-related activities. The framework for creativity education in Japan should be extended to innovations in business and industry. The transfer of experience from business and industry to educational practice, whenever possible, should enrich resources of creativity education.

Creativity is fundamental for innovation, discovery and invention (Draeger, 1991). There are various types of creativity across cultural groups. The degree of creativeness can vary across educational levels, situations and fields. It is unwise to label one type of creativity as better than another type. Research in creativity should widen its horizon in accepting various degrees of creative performances, be they minor improvements or great inventions, an individual's new ideas or a group's original ideas, social innovations or technical (technological) inventions. Each cultural setting can offer its own historical examples related to maintaining and generating creative performances. The understanding of creativity and the cultivation of creativity education will be incomplete, unless researchers and educators attempt to accumulate and synthesise various characteristics and conditions for cultivating creativity.

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